Laboratory Interfaces SIG Teleconference

Date, Time & Location:	July 15, 2004; 4:00-5:00 PM EDT; Teleconference
Attendees:	

Center	Attendee
BAH	Davis Bu
BAH	Scott Finley
NCI	Sue Dubman
NCI	Christo Andonyadis
NCI	Smita hastek
Memorial Sloan-Kettering	John Speakman
Yale	Charles Lu
Georgetown	Jieping Li
Wake Forest	Bob Morrell
City of Hope	Joyce Niland

Information Flow:

- Laboratory data flows from clinical systems to trials systems: where to filter?
- Filter on way in: e.g. only get specified data for a specified time period on specified patients
  - May be more efficient
  - How to identify relevant data may be problematic
- Filter on way out: get all data, and select data required for reporting requirements
  - Memorial Sloan-Kettering model
  - Questions of HIPAA compliance
- Rules Engines to identify relevant data
  - May be needed in both models
  - Identifying precise lab values may be problematic (e.g. which WBC value in a series should be reported)
  - Effectiveness requires protocol data in a computable format
- Stages for reporting laboratory data
  - Format data to be analyzed
  - Toxicity grading of data
  - Identify required data specific to each protocol: WFU had difficulty in obtaining adherence for clarified protocols
- NCI Experience
  - Based on protocol definition, load relevant data
  - Nci does not discriminate lab that they care about from others
  - Present all data to clinicians for identification of relevant data (in contrast to automating this process.

HL7:

- See attached slides
- Key goal for caBIG: semantic and syntactic interoperability
  - Syntactic: focus on exchange of data
  - Semantic: focus on use of data and understand its meaning
- To achieve semantic interoperability HL7v3 uses common reference model with defined data types (HL7 RIM)
- Utilizes an object oriented development methodology based on UML
- HL7v2 limitations

- Ad hoc methodology that allows too much "optionality", making it difficult to define semantics
- No structure format, standard vocabulary
- Very site specific, no conformance rules
- Achieves syntactic, but not semantic interoperability
- HL7v3 will be backward compatible

- V3 provides both semantic and syntactic interoperability, but very new and under development
  - Only now going through first v3 implementations
  - HHS mandated HL7 as standard, and pushing v3
- NCICB is helping to provide leadership:
  - Pushing for CDISC:HL7 harmonization
  - Early adopter of v3 implementation
- RIM is the cornerstone of HL7v3 methodology
  - Six backbone classes: Entity, role, role link, participation, act, act link
  - 70 unique classes
  - RIM: defines healthcare based on six backbone classes
- D-MIM: domain message information model, refined subset of rim, include class clones
- Domains include health and clinical management domains, admin domains, infrastructure management domains
- R-MIM: information content for message or set of messages
- Lab messages: periodic reporting of clinical trial lab data has been approved as an HL7 standard, and is moving toward ANSI review
- Others messages under development
- Attempting to make v3 messages backward compatible (syntactically)
  - Site specificity of v2 messages makes compatibility difficult
  - HL7 SDK: provides ability to build and parse v3 messages
  - Provides Java API to RIM components
  - Will Validate HL7 using common NCICB common data elements and common terminology infrastructure components
  - Will be incorporated into caCORE
- Provides messaging exchange between clinical systems and trials systems via v3 messages
  - Messaging exchange to central database
  - HL7 transactional database provides HL7 API
  - Research database: de-identified data for translational research (e.g. Rembrandt project)
  - Creating limited data sets, unique id to link data, but data de-identified via safe harbor or statistical methodology
- Hl7v3 is early, providing opportunity to drive standard, but creates difficulty in application development since standards do not already exist
- Use cases from caBIG SIG may be presented to HL7 technical committee

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Face-to-Face meeting:	• Agenda items include: o Scoping questions (previous email thread from Sue Dubman) o Requirements for development o How to address architecturally: messaging hub? Adapters? Transformation service? o Coordination with architecture working group			
Action Items:	**Name Responsible**	**Action Item**	**Date Due**	**Notes**